

11 P065
EN 90 CB
Vol. 17
Item 10B

CONN. COLLEGE LIBRARY
MAY 29 '90
NEW HAVEN, CT

Conn. Documents

CONNECTICUT

ENVIRONMENT



Published 11 times a year by The Connecticut Department of Environmental Protection



Connecticut's Birds of Prey

May
1990

CONNECTICUT ENVIRONMENT

May 1990
Volume 17 Number 9
\$7/year



Page 3.



Page 15.

Features

- 3 **Giving the Parks Back to the People** by Robert Paier
A day in the life of a tough park cop.
- 9 **DEP Employees Honored**
Awards for outstanding environmental contributions.
- 10 **Native American Events**
Opportunities to encounter Indian culture and tradition.
- 12 **The Legacy of Chernobyl** by Judy Friedman
A Connecticut resident views an environmental nightmare.
- 19 **On Morality and Junk Mail** by Alan Williams
A year's worth of unsolicited mail.

Departments

- 2 **Editor's Note**
- 7 **The Natural Historian** by Winifred Burkett
- 11 **Map of the Month** by Alan Levere
- 14 **Parkviews** by Erica Jorgenson
- 15 **Wildlife Information Series**
- 19 **Trailside Botanizer** by Gale W. Carter
- 22 **Bulletin Board**
- 23 **The Night Sky** by Francine Jackson
- 23 **Letters to the Editor**
- 23 **Endnote**

Cover: Young Screech Owls by Leonard Lee Rue III

Commissioner
Leslie Carothers
Director of Communications
Wanda Rickerby
Editor
Robert Paier
Graphics
Rosemary Gutbrod
Composition
Caryn Furbush
Circulation
Olive Tyghter
Business Manager
Donna Fadoir

Phone
566-5599

DEP Connecticut Environment

Published 11 times a year by the Department of Environmental Protection. Yearly subscription, \$7.00; two years, \$13.00. Second class postage paid at Hartford, Connecticut. Please forward any address change immediately. Material may be reprinted without permission provided credit is given, unless otherwise noted. Address communications to Ed., DEP Connecticut Environment, Dept. of Environmental Protection, Rm. 112, State Office Bldg., Hartford, CT 06106.

"The Connecticut Department of Environmental Protection is an equal opportunity agency that provides service, facilities, and employment opportunities without regard to race, color, religion, age, sex, physical or mental disability, national origin, ancestry, marital status, or political beliefs."

Editor's Note

Today, in this period right after Earth Day '20, it seems we have somehow crossed the line into the future; the future seems, oddly, to be right now. Of course it is possible to say that at any point on the good old time continuum. Nevertheless, most would agree that our environmental future, right now, is unfolding before us.

Historical periods are marked by changes in consciousness, changes in how we understand ourselves and our relationship to the world. And as we move into our environmental future, we do so as changed people, with changed understandings of who we are, of what we can and cannot do.

What I see, what many others who work in the environment see, is a return of the sense of individual power. People are beginning to think not only that they *should* do something, but that they *can* do something. For some time now, we have been lulled into a sense of powerlessness, of the futility of struggling against anonymous big business, big government, Big Progress. And, because we believed that to be the case, it was the case. We couldn't do anything. But the future — which is now — isn't like that. In this future, we can do something. We *can* recycle a tin can, we *can* successfully boycott a tuna industry, we *can* develop clean, safe forms of alternative energy. We can do that. In this new future, we are doing that.

"The times they are a-changin'," the man told us a while ago. They *are* a-changin'. And they're changing because of a newly rediscovered power of the individual to make a difference. What you and I do really counts. Not what the big nameless conglomerate does, but you and I. Very exciting, this future we're entering. A lot of possibilities. The signs are encouraging.

R.P.

Giving the Parks Back to the People

by
Robert Paier

THE CONNECTICUT DEPARTMENT of Environmental Protection wants your stay at any of our beautiful state parks to be safe, relaxing, and enjoyable. It wants Connecticut state parks to be places where you and your family can enjoy the outdoors, can get closer to the natural world, where you can swim and hike and camp, and it wants you to feel safe and secure while doing it. And to do that, all you have to do is respect the rights of others to do the same thing. If you can do that, you will have a good time in the parks. If you can't do that, you can expect major problems.

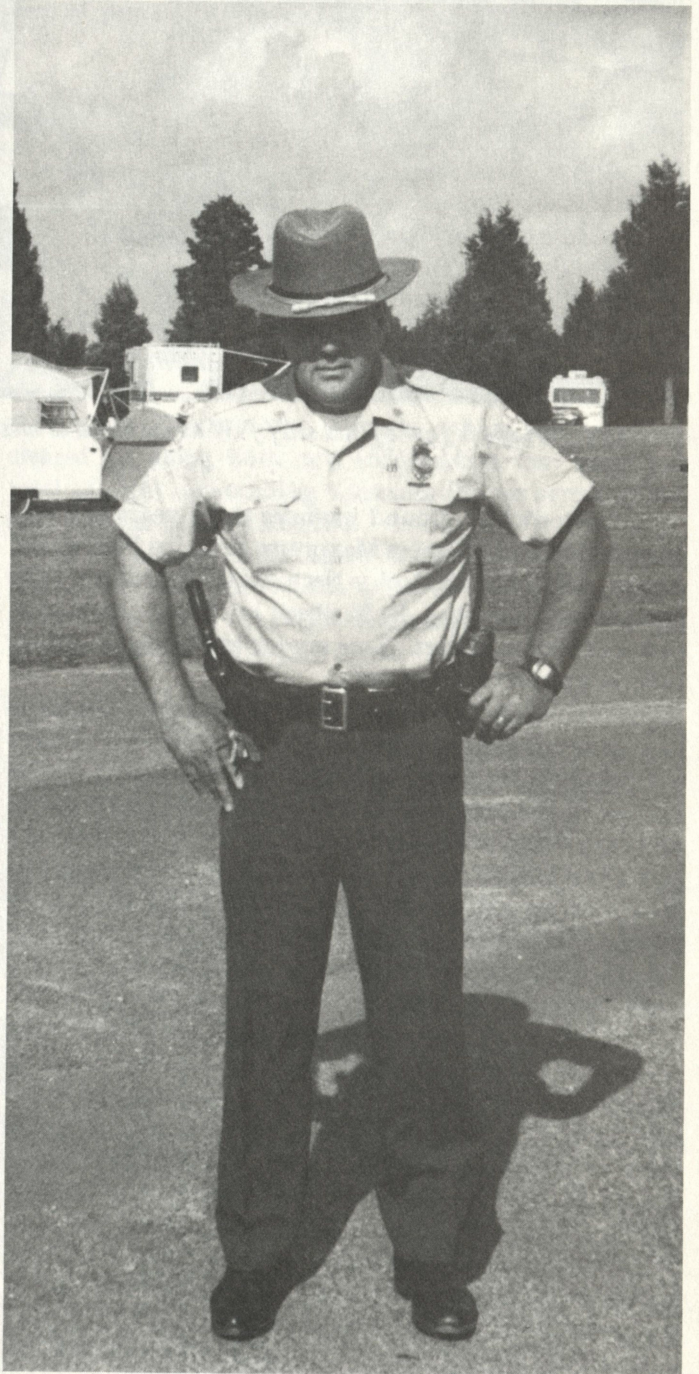
Saturday, July 8, 1989. Assignment: Spend a day with the law enforcement officers at Hammonasset Beach State Park.

It's a beautiful, clear, crisp day. Last night, a thunderstorm washed away an oppressive mugginess. The sun is shining, a nice breeze is blowing in from the water, pretty clouds skittering across blue, blue sky. Pretty much of a perfect day to be at a state park.

At 12:30 I arrive and meet Patrolman Robert Brown. He is a heavy-set, genial guy, who looks like he is capable of moving very fast if necessary. We get in his car, where a radio is squawking and sputtering. He clicks on the mike. "That individual is with me now," he calls in. "We'll be at your location in a few minutes."

This radio system, Brown explains, links up the 11 officers (including four mounted officers) on duty that day. We head for the central office when a call on the radio indicates that a woman has passed out from the heat near Meigs Point Nature Center. Brown decides to swing by. "This happens very frequently here," he says. "We make sure they get enough water, get cooled off, and generally they're all right." We spot the woman, who is being talked to by a uniformed patrolman. The woman is dazed, pale, but smiles gratefully to Brown. "Thank you all. I feel all right now."

WE ARRIVE AT THE OFFICE. There I meet John Johnston, in charge of law enforcement at the park. Johnston can only be described as a very big, very tough looking guy. He is exactly the kind of guy that you don't want to tangle with. Ever. Later Johnston tells me that his size is one of the resources he consciously draws upon in the performance of his duty. "Usually," he says, "my size tends to diffuse situations. When people see that, and they understand that I will be in control of the situation, then we can start to address the problem constructively."



John Johnston, in charge of law enforcement at Hammonasset Beach State Park, is not someone most people choose to tangle with. (Photos: R. Paier)



Johnston briefs a few of his staff. When a child is missing, the entire unit is involved in a highly coordinated search effort.

Johnston's background includes three years as a corrections officer at Somers Maximum Security Prison, and a park patrolman at Rocky Neck State Park from 1979 until 1983. Since then, he has been in charge of the park patrol at Hammonasset. "I see my job as a protector rather than as an enforcer," he says.

As we drive, Johnston's eyes — cops' eyes — continue to dart around, alert to everything. "I know that I have a reputation for being a tough cop," he says. I decide against contradicting him, as I want to be very polite. Johnston tends to inspire politeness. "If you're having a good time within the limits of allowing others to have a good time, then you have my blessing. And I also understand that human beings can make mistakes. So frequently I will cut people slack. In this job you have to be hard, fair, and use common sense."

Hammonasset is a very big park. It is possible that there will be as many as 20,000 people in it on a heavy weekend. "It's really a small city," says Johnston. "And because of the transitory nature of the people here, you can't really develop a familiarity with the population. So events get that much more unpredictable."

We swing by a boat launch area, where Johnston checks to see if any cars are illegally parked. "We've speeded up the ticketing process here," he says. "Now, if we write up a ticket, it's an automatic \$50."

I ask Johnston what the typical day might be? Is one part of the day busier than others?

"During the day is when we have the most activity," he said. "That is because the beaches are open during the day. The most people are here then, and pretty much of

anything can happen. At night, just the camping people are here. At night, the main problems involve drinking and domestic violence. And drugs. People think they can get away with taking drugs at night at the park. They're wrong."

Johnston sees alcohol as being the cause of most problems in the park. "I would say that 90 percent of the incidents involve drinking. And what amazes me is how a person can be violent and dangerous to others while under the influence, and then the next day when they're sober, they're a completely different person." Johnston indicated that he sometimes thinks how easy his job would be, and how much more pleasant the park would be, if no alcohol were allowed. "I guess that won't happen, though," he says.

WE CONTINUE TO DRIVE AROUND THE PARK. Johnston tells me that once he sees a face, he never forgets it. Even after as long as five years, he says, something goes off in his mind and he will recall a person. "A lot of cops have that," he says. "A kind of intuition, or sixth sense. It's like being street-wise, but a little more."

Johnston waves to a young man driving by in a white sedan. "I arrested that guy six times," he says. "But we still wave to each other. You have to keep a professional, respectful attitude toward everybody. Just do the job."

The squawk box pipes up. There is a child missing on the beach. Johnston calls in orders deploying a search of the area. "This is where the radio is so important," he says. Then he tells me of a recent incident in which someone

brought in a lost child, and the mother didn't report it till six hours later. "She was drinking on the beach, and passed out," says Johnston.

I ask Johnston if he had any drownings at the park. "Knock on wood," he says. "No."

The squawk box again. Another child missing. This one was last seen in the water. Again Johnston calls in, coordinating the search.

"That's how it is, here," he says. "You can be quiet and peaceful one minute, and the next minute, all hell breaks loose."

We start driving toward the beach where the second child was reported missing, and once again the squawk box crackles. Two men have pulled into the park, and were driving erratically. Pulled over by one of the park patrolmen, it turns out that the car they are driving was stolen that morning in Wallingford. The patrolman is calling for assistance. "Here we go," says Johnston. He turns on his flashing blue light and hits the accelerator. No siren. At this point I stop asking questions. Johnston is working now, and he doesn't need extra distraction.

We pull into a campground, where a blue Trans Am is parked. Two men, white, early 20s, are in the front seat. A uniformed patrolman is standing behind the car. Another patrolman is in front of the car. A small crowd of people is beginning to form. With Johnston's arrival, and his flashing blue light, more people become aware of something going on. We pull to a stop. "Stay in the car," says Johnston. "In case things get tricky."

Johnston walks to the car. It becomes clear that only Johnston is carrying a firearm. But it is still in the holster. He makes no move to bring it out. He talks to the guys in the car, and they get out. The driver is a slender, very

tough looking guy, maybe about 25. The passenger is a very heavy, dangerous looking guy, weighing at least 250 pounds. Both guys look like serious trouble, beyond the level of mischievous kids out for a joy ride.

Within about two minutes, both men are searched, handcuffed, and put in a patrol car. Johnston never drew his gun. It all happened fast, quietly, and with feather touch control. No mistakes. No slip-ups.

"The big danger here," says Johnston, "is with the spectators. The more people around, the more things can go wrong."

Nothing did go wrong. What I witnessed was a small gem of perfect policework in action.

BACK AT THE HEADQUARTERS, the two suspects are searched thoroughly, and a quantity of what appears to be marijuana is found. Robert Brown takes a few leaves and runs them through some chemical tests. "If this checks out positive, we will add another charge right here and increase bond." The material does indeed check positive.

Meanwhile, a check is made with Connecticut state police in regard to any possible outstanding warrants for these two men. There is an initial discrepancy as to the true name of one of the suspects, which is ultimately cleared up, along with new information that there is a total of eight outstanding warrants for his arrest. Johnston sets the bond at \$10,000.

Right at that point there is the second reunion of mother and lost child. The baby has been brought to headquarters by one of the patrolmen, and the mother reported in soon after. It is a happy scene.



The horse patrol has proven an invaluable aid, allowing of ficers high visibility and mobility.



BUSTED. Two suspects are brought in on charges of possession of a stolen motor vehicle and possession of drugs.

"That's how it is for a cop," says Johnston. "Periods of inactivity, then periods of lots of activity. Sometimes people don't understand that a cop might not have any reason to get into action for a long time, but when something does happen, he has to be completely ready right then."

fast in reaction time, physically intimidating, and perceptive. That's what he is, and that's what he works with. But what he does with all that is making things a little bit better, a little bit safer, a little bit more secure for a family to relax and enjoy themselves at the end of the week. That's the point of it all.

THINGS DO START TO LEVEL OFF. The flurry of activity surrounding the arrest of the two men, and the two lost children seems to abate. Johnston sits back with a cup of coffee. During the lull, he starts talking about another aspect of his professional life, the Connecticut State Park and Forest Ranger Association, of which he is president. "In this job," says Johnston, "you don't ever really go home. Everything you do is part of the total effort and dedication that is required. Some of the things we do in the Association are directed at improving professional image, communication, and expertise among the rangers. That's a big part of it. So, a better cop makes a better park, makes a better, safer time for the citizens of the state. One thing improves the other."

As he is talking, another dimension starts to creep into this big, tough, and in fact rather scary looking cop. "One of the projects we're involved in in the Association is putting together handicapped access trails, so more people can enjoy the peace and beauty of the parks. That's something we do that's extra, but it's not really extra. That's really the spirit of everything we do in the parks. The main idea is to give the parks back to the people."

And then it becomes clear just what John Johnston is doing. He is a tough cop, a guy who can and will enforce the laws of this state. That's what he is — big, tough, very

IT'S GETTING A LITTLE LATE in the afternoon, and Johnston decides to take one more cruise around the park, just to keep tabs on things. It's a slow, peaceful drive, but then again, there is the understanding that the world can explode at any time. It puts a definite edge to taking a ride with John Johnston.

Is there anything in particular he would like people to understand before they come to Connecticut's parks?

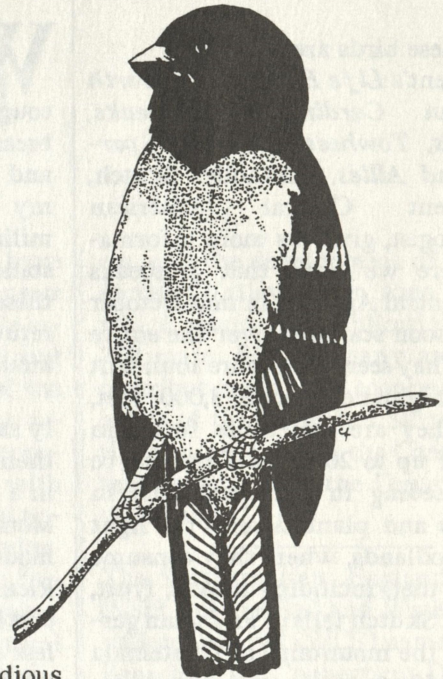
"I would tell people that they are welcome to come and relax and enjoy themselves at our parks, that we want them to have a good time here. But even though they come here to have a good time, they must remember that the rules of courtesy still apply. When you come here, you must treat other people with respect. In Connecticut's parks, we insist on that, and we are very serious about enforcing that."

And that's the end of the day. I spent a few hours at one of Connecticut's showplace parks, where you go to unwind, to relax, and enjoy the sun and the water and the air. But, instead of being relaxed, I realize I am tensed up, hyper-alert, and physically exhausted. Drained. And all I did was ride around and keep in the background.

As I drove home, I thought about how secure a family might feel at Hammonasset Beach State Park, knowing that a guy like John Johnston is out there, sort of keeping an eye on things.

The Birds of Spring

by
Winifred Burkett
Naturalist
Connecticut State Museum
of Natural History
Illustration by
Caryn Furbush



OH, SPRING. This season, to a birder like myself, is a long parade of birds coming back north. It starts in February with the return of the first migrants, the red-winged blackbirds, and ends in June with the passing of the last shorebirds on their way to their nesting territories in the Arctic. But the most spectacular month of the spring has to be May, when the most colorful and best singers arrive in Connecticut.

We can always count on rose-breasted grosbeaks to show up in the first week in May. The males arrive first, and what gorgeous birds they are — black and white with a bright rose-colored bib. They make their first appearance at our bird feeder where they gorge themselves on sunflower seeds. The females return a couple days after the males and soon there are eight to ten grosbeaks in the trees in the backyard, squabbling for turns at the feeder. We know some of these birds return year after year because I have been able to band some of them, as I have a bird banding permit from the federal government.

The grosbeaks use the feeder for a couple of weeks, then they are off (to where?), establishing nesting territories, building nests and raising young. One pair nests in our back yard. We've never found the nest, but we often

hear the male singing his melodious song on the edge of the woods, and, later in the summer, see him and his mate feeding their offspring in the yard.

About the same time that the grosbeaks show up, the northern orioles also return to our yard. The bright orange-and-black males immediately start setting up territories. Their disputes are frequent and very visible as the trees haven't yet leafed out. Soon only one pair remains to build a nest and raise young in the woods behind the house. Unlike the nest of the elusive grosbeak, we often find the unusual hanging nest of the northern oriole family because they are very noisy coming and going. Both their beautiful coloring and varied song, which they sing frequently during May and June, are welcome additions to the spring.

GROSBEAKS AND ORIOLES stay throughout the summer. In June, we frequently flush them when we walk out to the vegetable garden. The grosbeaks seem to be as fond of fresh peas as we are, and it is not uncommon to find empty pods hanging on the vines full of V-shaped holes where they have extracted the peas.

I don't mind sharing a few peas

with the grosbeaks, as they also eat may insects and may be cleaning some unwanted pests out of the garden.

The orioles also hang around the garden, although what they are eating is not as easy to tell. Their diet consists of fruit, nectar, and insects. As they are particularly fond of caterpillars, we will happily share our pesticide-free garden with them also.

Young orioles and grosbeaks are fully fledged and on their own by August. Almost all of these birds are south-bound by the middle of September. These common birds spend only four-and-one-half to five months in Connecticut. The majority of their year is spent somewhere else.

Although we don't know exactly where Connecticut's birds go for the winter, we do know that 70 percent of the birds that nest in Connecticut migrate south for the winter.

But where and doing what?

We can find some of the answers in field guides. Peterson's *A Field Guide to the Birds* tells us that rose-breasted grosbeaks winter from the West Indies and Mexico to northwestern South America. Peterson also tells us that northern orioles winter in the American tropics. This is obviously only a beginning in understanding

what these birds are doing.

In Bent's *Life Histories of North American Cardinals, Grosbeaks, Buntings, Towhees, Finches, Sparrows, and Allies*, Alexander Skutch, preeminent Central American ornithologist, gives us more information. Here we learn that grosbeaks reach Central America in mid-October and are soon scattered over the entire region. They seem to be more abundant in the highlands above 3,000 feet, where they are sometimes found in flocks of up to 20 birds. They can be found feeding in the forest and in clearings and plantations with light open woodlands, where they consume a varied diet, including insects, fruit, and peas. Skutch tells of an Indian gardener in the mountains of Guatemala and his efforts to discourage the grosbeaks who were eating the peas in his garden.

Skutch also tells of one of the unusual problems grosbeaks face in Central America. They are frequently captured and kept in cages for their song and attractive plumage. In the United States, it is illegal to keep native birds as pets. But in Latin America, where there are few or no laws protecting them, many of Connecticut's spring and summer birds can be found caged and for sale in markets.

In Bent's *Life Histories of North American Blackbirds, Orioles, Tanagers, and Allies*, Skutch reports that northern orioles start arriving in Central America in mid-September. He tells of finding northern orioles in almost every habitat, from the dry coast of El Salvador, where they spend the winter among cactus and low thorny trees, to the thick rain forests of the mountains, where they spend their time foraging in the tops of the trees. In these habitats, orioles eat a wide variety of food. Skutch had great luck using bananas to attract them to a tray feeder at his home in Costa Rica and often found them at night sleeping in the orange trees in his yard. After spending many months in the tropics, orioles and grosbeaks start on their long journey north in mid-April.

WHILE TRAVELING in Costa Rica several years ago, I encountered a flock of 10 male rose-breasted grosbeaks foraging in moss and bromeliad-covered trees. After my initial surprise at seeing this familiar bird in such unfamiliar circumstances, I started to wonder if any of these were our birds. Would they be returning from this forested tropical mountain to our back yard?

While in Costa Rica I also regularly saw northern orioles. Several spent their days probing the orange flowers in a large tree in front of our hotel in Monte Verde, a forest preserve in the mountains of northwestern Costa Rica. Others were seen in the forest and in the forested edge of a large birdless coffee plantation.

Every time I saw northern orioles, I wondered if these might be birds from Connecticut. At this time there is no answer, for in spite of all the banding and observation that has been done, we still do not know specifically where our grosbeaks and orioles go for the winter.

However, one of the interesting things we do know about orioles and grosbeaks is that many of these birds winter in the same Latin American area year after year. Ornithologists doing long-term studies of North American birds which migrate to the tropics have encountered the same individually marked birds in the same area several years in a row. This means that the same birds that return to our yard year after year may also return to the exact same spot in the tropics every year. So far there is no way of knowing where that spot may be but somewhere down there are places that we need to be concerned about.

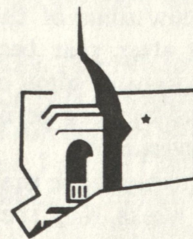
We might be reassured if we knew for sure that Connecticut's orioles were the ones in the trees in Monte Verde. The Monte Verde forest preserve contains thousands of acres and is using the generous donations of many concerned people to add more land to the preserve.

But if Connecticut's orioles are the ones foraging in the forested edge of

the coffee plantation they may have a problem. Costa Rica's economy is very dependent on the export of coffee and other crops. The size and number of coffee plantations is increasing rapidly, and coffee plantations offer little habitat that is usable to orioles or any other birds. Of course, if we knew that Connecticut's orioles were wintering in that land next to the coffee plantation, we would probably try to raise money to donate to a group in Costa Rica that purchases and protects land and encourage them to buy that particular piece of land.

If we know *exactly* where all the birds in our yards go in the winter, many of us would quickly and personally become involved in saving Latin American bird habitats. I would happily buy extra peas or an inflatable Burpee's scarecrow for that Indian gardener in Guatemala, if those were my grosbeaks in his garden. I would hate to think that his only alternative might be catching them to sell as caged birds or eliminating them.

MOST OF THE BEAUTIFUL birds that are arriving now in Connecticut spend more time in their winter homes than they do here. So, if it is important to us to have in our yards, woods and fields, the orioles, rose-breasted grosbeaks, and more than 100 other species of birds that migrate south, then it is important for us to become involved in the preservation of their winter habitats as well as their summer homes. ■



DEP Employees Honored



Hugo F. Thomas, chief, Bureau of Environmental Services.

Two awards have been developed to provide recognition to extra-Federal governmental individuals and groups who have made important contributions, either directly to the U.S. Department of the Interior, or through efforts that related to Interior's missions.

A citation for conservation service was awarded to Hugo F. Thomas in recognition of his outstanding contributions to programs associated with conservation of natural resources in the Department of the Interior.

According to the citation presented to him, Thomas, state geologist and chief of the Bureau of Environmental Services, Department of Environmental Protection in Connecticut, has been one of the most effective cooperating officials associated with programs of the Geological Survey. The citation went on as follows: "His activities touch all operating divisions within the Bureau and include work in hydrologic investigations, geologic and soil mapping, and geographic information systems development. His contributions to the dissemination of reports

from Geological Survey studies have been instrumental in providing users with information on earth science aspects of important environmental and conservation issues. As director of the Natural Resources Center, he has developed one of the most dynamic cooperative programs dealing with mission-oriented work of the Geological Survey. His initiative in developing a comprehensive geographic information system (GIS) for managing, displaying, and analyzing natural resource data was a forerunner of the current systems being developed and enhanced within the Geological Survey. Without Thomas' leadership, the Geological Survey GIS laboratory would not be among the leading laboratories of its type in the nation. His early support of a data directory that provides information about earth science related data holdings led to the establishment of the Earth Science Data Directory. This program which originally had five state members, now has 41 state participants. Thomas' contributions to the planning and operation of this important activity played a key role in its expansion. Another measure of his exceptional contributions to conservation initiatives is his leadership in developing the Water Quality Standards and Classification of ground water in Connecticut. This program is one of the most comprehensive natural resource protection programs in the nation. The program not only provides ground-water management strategies, but allows for total integration of various facets of Geological Survey information, such as ground water flow and the transport and fate of chemical substances. Among his most significant contributions to cooperative program enhancements was the 20-year effort to produce the Bedrock Map of Connecti-

cut, and the development of the Connecticut Valley Urban Area Program, which resulted in publication of over 200 maps. For his many and varied contributions to the cooperative programs of the Geological Survey, Hugo F. Thomas is granted the Conservation Service Award of the Department of the Interior." ■

The Southern New England Chapter (SNEC) of the Soil and Water Conservation Society (SWCS) named Fred S. Banach of the Connecticut DEP's Water Management Division, as the recipient of the organization's Commendation Award for 1989.

The award was presented during the Chapter's winter meeting held in Sturbridge, Massachusetts, on Thursday, February 15, 1990. The SNEC's commendation award is presented in recognition of an outstanding effort or activity to promote soil and water conservation.

Banach was recognized for his instrumental role in coordinating and providing assistance to the water resource program in the state of Connecticut. Banach's professional involvement has influenced a number of programs aimed at protecting the soil and water resources of the state. These programs include: wellhead protection, aquifer protection, nonpoint source pollution program, dairy industry protection program, and coordination of DEP assistance to the Connecticut Council on Soil and Water Conservation.

The SNEC, with over 350 members from Massachusetts, Connecticut and Rhode Island, is part of Soil and Water Conservation Society which has a worldwide membership of 13,000. The Chapter and Society are dedicated to advancing the science and art of good land and water use. ■



Tonantzlin Aztec dancers were among the many colorful and exciting performers who have attended powwows in Connecticut. (DEP file photo)

Native American Events

May 12 — Dartmouth College, 19th Annual Powwow. Hanover, New Hampshire (603)646-2110.

May 19, 20 - Mass. Center for Native American Awareness. Spring Powwow. Pratt Farm, Route 105, Middleboro, Mass. Slow Turtle (617) 727-6966, (617) 884-4227.

May 26, 27 - American Indianist Society (AIS). May Dance. 4-H Camp Marshall, Spencer, Mass. (508)852-6271.

June 2,3 - Worcester Indian Inter-Tribal Council. Annual Powwow. Memorial Field, Rutland, Mass. Princess Winona (508) 754-3300

June 9,10 - Wollomonuppoag Indian Council. Annual powwow. LaSalette Shrine Fairgrounds, Route 118, Attleboro, Mass. Chief Running Deer (508)822-5061.

June 16,17 — Worcester Indian Cultural Art Lodge. Annual powwow. Pratt Junction, Sterling, Mass. Princess Winona (508) 754-3300.

June 23,24 — The Order for the

Preservation on Indian Culture (TOP-IC). Annual powwow. South Shore Natural Science Center, Off Route 123, Norwell, Mass. Chief One Bear (617) 337-4308.

June 23,24 - Conn. River Powwow Society. Strawberry Moon Powwow. Ferry Park, Route 160, Rocky Hill, Conn. Dick Harris (203) 487-0036, Geff Alson (203) 684-5407

June 30 — Nipmuck Indians. Strawberry Moon Festival. Nipmuck Reservation, School Street, Webster, Mass. Chief Wise Owl (508) 943-4569.

June 29-July 1 — Calico Dancers. Annual Good Time Powwow. Moreau Recreation Park, South Glens Falls, New York. (518) 793-3471.

June 30-July 2 — Mashpee Wampanoag Indian Tribal Council. Annual Powwow. Route 130, Mashpee, Mass. (508) 477-0208.

July 14,15 — Algonquin Indian School. Annual Powwow. Roger William's Park, Providence, Rhode Island. (401) 781-2636.

July 15-22 — Third Annual International Brotherhood Days. Porcupine, South Dakota. (703) 250-4161.

July 21,22 — Dighton Inter-Tribal Indian Council. Council Oak Powwow. Route 138, Town Hall, Dighton, Mass. Chief White Wolf (508) 669-5008.

July 29 — Hassanamisco Nipmuc Indian Council. Annual Indian Fair. Hassanamisco Reservation, 80 Brigham Hill Road, Grafton, Mass. (508) 393-8860.

Aug 5 — Star Mountain Peoples Gathering. Tyngsborough State Forest, Tyngsborough, Mass. (508) 892-8357.

Aug 4,5 — American Indian Federation, 59th Annual Powwow. University of R.I., Beck Field, Kingston, R.I. (401) 364-9832.

Aug 11,12 — Narragansett Indian Tribe, 315th Annual Powwow. Old Mill Road, Rte. 2, Narragansett Church, Charlestown, R.I. (401) 364-9832.

Aug 18,19 — New England Coastal Schaghticoke Indian Assn. Annual Powwow. Mohawk Trail, Rte. 2, Indian Plaza, Charlemont, Mass. Princess Necia (617) 961-1346.

Aug 18,19 — Conn. River Pow-Wow Society. Mohegan Homecoming Powwow. Fort Shantok State Park, Off Route 32, Montville, Conn. Dick Harris (203) 487-0036; Ed Sarabia (203) 566-5191; Geff Alson (203) 684-5407.

Aug 24,26 — Conn. River Pow-Wow Society. Conn. River Powwow and Rendezous. YMCA Camp, off Route 691, Southington, Conn. Dick Harris (203) 487-0036; Geff Alson (203) 684-5407.

Aug 31-Sept 3 — Mountain Eagle Indian Festival. Hunter Mountain, Route 23A, Hunter, NY. (315) 363-1315.

Aug 31-Sept 3 — Shinnecock Pow-Wow, Shinnecock Reservation, Route 80, Long Island, NY. (516) 283-3776. ■

On the Open Water

by
Alan Levere
Senior Environmental Analyst

I MUST SAY that I never really thought I would write about a map that we (the DEP) didn't think of or even print. But here I am doing it.

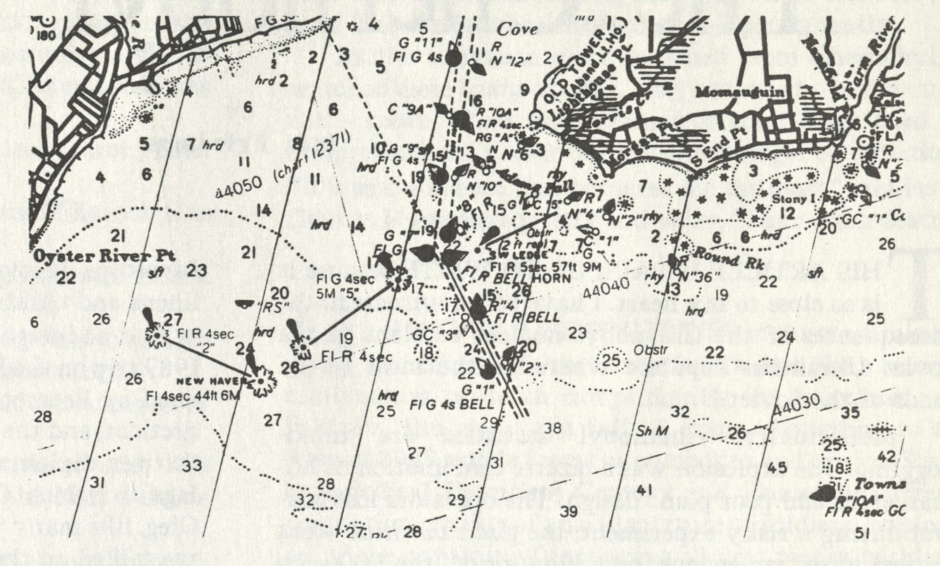
With the grim admission that, yes, financially we have limitations on what we can produce, this month we are none-the-less glad to discuss a map that's guaranteed to be a mariner's delight, and of definite interest to scores of others.

As you may know, the National Oceanic and Atmospheric Administration (NOAA) produces maps that show the offshore depths of navigable waterbodies. These are called charts.

It takes four charts to cover the Long Island Sound and this makes it rather a nuisance to conveniently pack up and go. In fact, since the charts are printed on paper, they are prone to water damage from spills and spray, and in general suffer from extended use. Now there is an option to that format.

A company here in Connecticut has printed the information of the four charts onto a single waterproof sheet. This sheet is a special polypropylene plastic that is completely waterproof and tearproof. You can use lead pencil, grease pencil, and most pens to write on it. You can remove the markings and wipe the chart clean with a damp cloth. These things combine to make this chart even better and more versatile than NOAA's.

This single sheet is a compilation of the latest NOAA charts available at the time of printing. Of the four, one is dated 1984, one 1985 and two 1986. The sheet measures 46 x 34 inches and is printed on both sides: the eastern Sound on one side, and the western on the other. The scale of this multi-colored chart is 1:88,000. It covers all



A section of Long Island Sound, from the Natural Oceanic and Atmospheric Administration charts.

of the water and surrounding land area from just west of the Throggs Neck Bridge to just east of Point Judith, and includes all of Montauk Point and Block Island.

For me, a non-mariner, the map is a whole new world of information. To begin with, the approach channels to many harbors and rivers are portrayed, and while you would need a more detailed map for large craft navigation, it interests me to see the variance across the map in the direction of approach. I was surprised at all of the navigational light structures indicated on the chart as places to keep clear of.

The waterways are filled with reminders of obstructions and wrecks, mooring buoys, shoal areas, and even fish weirs. Interestingly enough, there are 19 areas labeled "dumping ground." The smallest of these measure over a mile in both length and width. I was surprised to see so many of these depicted on the map. But I guess it really is no different than a map of all the inland dumps. There are legends to relieve the land lubbers like myself of the confusion of nautical measure. There is a conversion chart from feet to fathoms and meters. There is also a linear measure of nautical miles and yards.

I have always thought that once

you get out in open water it must be confusing as to where you actually are. And so I found it comforting that the coastline on this map is dotted with the locations of the smokestacks, water towers, and even church spires that dominate the coastal communities. For instance, from the Milford area you can see over to Port Jefferson on Long Island. And there, sure enough on the map, are the chimneys or stacks that are visible. For those who make use of it, Loran navigational information is also included.

So, though we can't say we are responsible for it, we now have a response for the requests our map sales room gets for the charts of Long Island Sound. The single sheet chart is now available for \$14.95.

To order, please include \$2.00 for shipping and handling per order and eight percent Connecticut sales tax. Our address is: DEP-NRC, Map Sales, Room 555, 165 Capitol Avenue, Hartford, CT 06106.

The Natural Resources Center has its 1989-90 List of Publications and Information Directory available at no charge. Just drop us a line for your free copy. DEP-NRC, Map Sales, Room 555, 165 Capitol Avenue, Hartford, CT 06106.

The Chernobyl Legacy

by
Judi Friedman

THIS ARTICLE IS PAINFUL TO WRITE because it is so close to my heart. I have borne witness to the consequences of the Chernobyl nuclear accident in the Soviet Ukrainian Republic where lie the most fertile lands of the Soviet Union.

Intellectually, Chernobyl statistics are mind-boggling. The explosion was a bizarre combination of human error and poor plant design. The operators lost control during a risky experiment; the giant machine went critical with tremendous force, blowing off the 1,000-ton steel lid sitting on top of the reactor. The core vaporized, sending a deadly nine-mile plume into the atmosphere. According to Dr. Robert Gale, a UCLA leukemia specialist, a cloud of radiation material, greater than Hiroshima and Nagasaki combined, was released.

A "forbidden zone" of 1,000 square miles was created around the plant. Winds, atmospheric turbulence, gravity, and surface effects spread the initial cloud. It then spilt over Europe and Asia, carrying some on to the west coast of North America.

As the radiation spread, it touched more innocent victims in other countries. According to the Center for Radiation Studies, 592 begueral per kilogram of Cesium-137 showed up in wild mushrooms in northeastern Italy. (One begueral is an atomic disintegration per second). Farmers in parts of Sweden were instructed to bury their parsley and chives that had levels up to 7700 and 4000 bg/kg, respectively. Norwegian Sami reindeer herders saw their precious animals slaughtered and buried. According to *The Nation* (3/28/87), the Bavarian government attempted to sell radioactive powdered milk to Nigeria and Egypt. As many as 1.25 million sheep and lambs were declared unfit for consumption in North Wales and Cumbria, U.K.

The statistics also touch me personally. A niece returning from an environmental research project in the Mid-East tells me that much Turkish tea is radioactive — and is being sold. Sadly, even my own family is somehow chosen. In April 1986, our daughter and her husband were living in Geneva, Switzerland. Officials there announced which foods were safe. I hope our children received enough protection.

My personal pain also comes from the faces I see when I think of the accident. It is easy to imagine frightened people being evacuated in buses; it's more difficult to imagine what they left behind — every cherished piece of

furniture, beloved heirlooms and tools, photo albums, linens and childrens' toys. However, I know Oleg Zhuk, who is no imagined, distant statistic. I met Oleg during a 1989 trip on the Dnieper River from Kiev to Odessa. Sponsored by Promoting Enduring Peace in Woodmont, Connecticut, and the Ukrainian Peace Committee in Kiev, we "citizen diplomats" visited many areas, including a village to which Chernobyl victims had been evacuated. Oleg, like many young soviets, spoke excellent English, so we talked on the bus as we traveled to Tavrina, an area for Chernobyl victims that had been incorporated into an already existing Ukrainian village.

At the time of the Chernobyl accident, help was needed to deal with the accident and to evacuate the victims. Oleg, drafted into military service, had no choice about his duty. "They gave us some safety equipment but the weather was so warm that some of the guys took it off. I'll never forget how the radiation detectors went crazy when the buses (of evacuees) passed our checkpoint," said Oleg who had stood on the road to Kiev on the outer rim of the "zone." Oleg has a slender, sensitive face. When he speaks about his experience at Chernobyl, a shadow passes over it. "I don't know what my future will be."

Beautiful Natasha Zamulko is a divorced mother of three children. She is also a published Ukrainian poetess whose poem, "The Bells of Chigirin," acted as a catalyst to prevent the construction of a huge new atomic complex in the Ukraine. Natasha had seen the results of Chernobyl first hand. In a letter to me, she wrote, "We should not leave our children the land radioactive through and through."

Another vignette — perhaps the most poignant — was a discussion with some old farm women in a village called Nebrat. Unlike Tavrina, this totally new settlement had been constructed in the middle of an open field; the hot summer sun beat down on us. No tree was in sight. A small group of us wandered over to a group of *babushkas* (grandmothers). Their weathered, stony faces did not invite conversation. After some time, however, a few of us began to talk about the accident, about the fruit trees and gardens they left behind. The women told us of their river and their fertile fields that they had been forced to leave. Their present homes were sturdy but stark, tree-less bleak, standing row by row. Tears filled the eyes of the most verbal member. In exasperation, she cried out in anguish, pleading to us: "No more Chernobyls. The earth did not do this to us!"

GRASSROOTS ACTIVISTS, fueled by *glasnost* and *perestroika*, also met our group. Sujatoslav Dudko was one of them. A strong, intense man of about 45, Sujatoslav is the founder and secretary of the Ukrainian Green Party, the largest environmental group in the Ukraine. In the spring of 1989 he organized a rally of 50,000 people in the Kiev soccer stadium. Its purpose was five-fold:

- 1) To completely close down all nuclear power plants at Chernobyl.
- 2) To use the contaminated zone around Chernobyl as an international study center.
- 3) To halt the expansion of nuclear power and to seek energy alternatives.
- 4) To stop the secrecy and to force officials to inform the public about all ecological information.
- 5) To punish the people who lied about the dangers of Chernobyl.

Many Ukrainians said to me that those who lied should be treated in the same way as the Nazi Fascists were at the end of World War II.

The Soviet people are violently angry about the incorrect information given to them by government officials. According to Volodymyr Yavorisky (*Wall Street Journal*, 12-12-89), the elite evacuated their children to safe zones on the first day of the accident. "People living in Pripiat (20 kilometers from Chernobyl) were forced to remain behind for two days; weddings were held while radioactive particles fell."

An Associated Press release (2/9/89) stated that according to TASS, the official U.S.S.R. news agency, 20 Byelorussian villages were evacuated nearly three years after the accident. The contaminated area in the Byelorussian Republic is twice the size of Massachusetts. Deformed pigs and calves are being born in the Narodichsky District, according to a recent article in *Ukraine*. Lip, mouth, and other cancers have doubled among residents.

However, it is the faces of the American KNBC television crew (on an exchange with Soviet television arranged by Promoting Enduring Peace and the Ukrainian Peace Committee) who were granted permission to go to Chernobyl and Pripiat that spoke most eloquently to me. Accustomed to murders, beatings, and civil disasters, Meera Cheriyan, Peter Warneke, and Jess Marlow — producer, photographer, and senior anchor — are self-possessed, urban journalists who seemed prepared for the Chernobyl experience. Accompanying them was a young photographer, Lisa Toto. Wearing caps and white coats, the newsmakers were permitted to photograph the operating power stations at Chernobyl and the ghost town of Pripiat.

It was Pripiat that devastated the journalists. It is not a small typical peasant village, but formerly a city of 60,000 people, with high-rise apartment complexes containing restaurants, an amusement park, and all the amenities of comfortable contemporary urban living in the Soviet Union. Now the streets are watered daily to control the dangerous radioactive dust. Peter was warned not to wander onto the grass. Every building is empty; its contents buried. Doors stand open. Curtains blow out

from the open apartment windows. Laundry rots on clothes lines. Paint peels off the walls. Weeds sprout up through cracks in the pavement. Lisa photographed a baby carriage, abandoned on the path. There were leaves in it. The ferris wheel has stopped — permanently.

As the television crew returned from Chernobyl, I watched them board our bus. They could not — and would not — speak. Their faces drained of color, they tried to comprehend the potent but invisible danger of radiation. "It was the silence that bothered me the most," said Peter finally. Meera said quietly and sadly, "I have seen death."

HOWEVER, LIFE CONTINUES in the contaminated zone, a life that sometimes seems like a bizarre combination of death camps during the holocaust and Fellini's film about the fall of Rome. According to an August 1989 article from the outspoken and critical Soviet periodical *Twentieth Century and Peace*, the current population consists of an odd mixture of soldiers, employees of the remaining functioning nuclear plants, builders, marauders, moonshiners, pensioners who long for their homes, and children. The zone has created thousands of highly-paid jobs, attracting people like magnets from all parts of the Soviet Union.

Huge fish swim in the reservoirs. The gardens of the abandoned homes are overgrown with fruits in the summer. People mow radioactive grass, feed radioactive cattle, and keep stoves burning with firewood from forests which are closed to anyone not wearing overalls.

Many of the staff of the nuclear plants consider themselves doomed; they worry about the future of their children. About 5,000 of them were under the radioactive cloud. The imported "clean-up" people just want to earn as many rubles as possible.

It is the children of Chernobyl for whom I have the greatest concern. Illnesses abound, but they are officially explained as radiophobia or psychological concerns. However, the radiation peril seems even greater since the National Research Council, part of the U.S. National Academy of Sciences, has revised its estimate of risk from low levels of radiation. They appear to be four times as high as previously estimated, thereby increasing the number of people expected to get cancer as a result of the Chernobyl fallout. (*Newsweek* 1/1/90)

Ingesting radioactive Cesium-137 and Cesium-134 will be a problem for Ukrainians for decades, especially for the children. If a child and an adult ingest the same amount, the cancer risk will be greater for the child. Even the unborn are at risk. Preliminary results of blood tests from survivors of the Chernobyl nuclear accident show a link between the amount of radiation exposure and the number of mutated cells in their blood systems. Perhaps a new version of the *hibakusha*, the survivors of Hiroshima/Nagasaki has emerged — the Chernobyl *hibakusha*. ■

(The author is a long-time environmental activist and is chairperson of People's Action for Clean Energy, Inc.)

A Visit to Gay City State Park

by

Erica Jorgensen

Writing Intern

Department of English

The University of Connecticut

GAY CITY STATE PARK is tucked away in a wooded valley on the Hebron-Bolton line. The park boasts a swiftly flowing river, a large swimming pond, several small waterfalls and bridges, and 10 winding trails amongst its 1569 acres. But Gay City has something extra — throughout the park, the remains of an abandoned 19th century mill settlement can be found. There are even rumors of Gay City being haunted by a former village resident. However, this doesn't prevent the charming park from annually attracting over 100,000 visitors.

In 1796, part of the land which now comprises the park was settled by an independent, deeply religious group of about 100. The sect, led by village president John Gay, refused to socialize with neighboring communities. The inhabitants took advantage of the Blackledge River's power and built profitable paper, wool, and saw mills. Unfortunately, the wool mill caught fire in 1830, which prompted many residents to leave. After the paper mill burned in 1879, Gay City saw another dramatic drop in its population. The few members who decided to remain eventually died and the land temporarily became a sanctuary for wild cats and dogs. The "Lost Village" was even supposedly haunted by a jewelry peddler who was murdered by a settlement resident. Later, in 1953, E.P. Foster of Hartford willed to the state 1400 acres of land surrounding the al-



Right here in Connecticut, there are actual "ghost towns". At Gay City State Park, you can find one of them. (Photo: Erica Jorgensen)

leged ghost town. After some preparation, Gay City State Park was born.

The driveway leading into Gay City is actually part of the Main Street used by the settlers. Here, a small 19th century burial ground can be found to the right. Behind a picnic area and beach is the mill pond, which serves for ice skating in winter and fishing, canoeing, and swimming in the warmer months. Lifeguards are on duty from Memorial Day to Labor Day. Camping sites for youth groups are also available but permits must be obtained ahead of time by contacting the Eastern District Headquarters of the DEP in nearby Marlboro. Hunting can be done in the adjacent Meshomasic State Forest but is not allowed in the park itself. Cross-country skiing is extremely popular in the park in winter, and members of the Nordic Ski Patrol

are available for assistance on Sundays. During the rest of the year, Gay City's paths are ideal for a leisurely hike. Along the trails, granite foundations of the settlers' homes — some of which are 20 feet across — are still clearly visible, as are the remains of the paper mill.

Birdwatchers can catch glimpses of many different species in Gay City's woods, including red-tailed hawks, kingfishers, ruffed grouse, and woodpeckers. Snowy egrets and blue heron occasionally visit the park's many salt marshes. Mallards swim in the mill pond. Painted turtles can be spotted as they sun themselves on logs. In the forest, an occasional deer can be seen along the former roads of settlers.

For further information, please contact Park Supervisor Don Goss at 295-9523.



The red-tailed hawk is among the many species of carnivorous birds found in Connecticut. (Photo: L.L. Rue III)

Connecticut's Birds of Prey

The designation "bird of prey" is usually applied to any of the carnivorous (meat-eating) birds. This group includes hawks, vultures, falcons, and owls.

In Connecticut, representatives of each of the above groups are present. While some, such as the bald eagle and peregrine falcon, are considered endangered species and are therefore rarely seen, others, such as the osprey and red-tailed hawk, are commonly observed throughout our state.

HAWKS

There are 26 species within the hawk family in North America: 17 hawks, four eagles, and five kites. In Connecticut,

eight species of hawks and two species of eagles may routinely be observed.

While the hawk family is divided into three groups (true hawks, eagles, and kites), all of these species share common characteristics:

- strongly-hooked bill
- slit-like nostrils
- brightly-colored bill
- broad, rounded wings (except for kites)
- short and strong neck
- round head
- strong feet (usually yellow) with sharply-curved talons
- sexes alike in appearance, female usually larger
- eyes usually yellow, orange, red, or

brown

- fierce appearance accentuated by bony shield over eyes
- keenest vision of any living animal
- eyes so large they move little in sockets, must direct their vision by turning head
- have both binocular and monocular vision (binocular for hunting)

True Hawks

The "true hawks" are subdivided into accipiters, buteos, and harriers. Each subgroup has a distinctive appearance and lifestyle.

Accipiters

- called "bird hawks" as diet consists mostly of birds

- low flying, very fast
- body shape adapted for flying through woods
- short, rounded wings; long tails for speed and agility

Representative Species in Connecticut:

Sharp-shinned Hawk
Cooper's Hawk
Northern Goshawk



Accipiter

Buteos

- high soaring
- rounded wings; broad, banded tails
- rodents are primary food base
- many species have light and dark color phase

Representative Species in Connecticut:

Red-shouldered hawk
Broad-winged hawk
Red-tailed hawk
Rough-legged hawk



Buteo

Harriers

- called "harrier" due to habit of raiding or harrying its prey
- slow flight with much gliding
- light, slender body; long wings and tail
- face has owl-like facial discs
- considerable plumage difference between sexes

Representative Species in Connecticut:

Marsh Hawk



Harrier

Eagles

Eagles are actually large hawks. As such, they share the same basic, physiological characteristics listed for the hawk family. These are the largest hawks.

Representative Species in Connecticut:

Bald eagle (wintering)
Golden eagle (during migration)



Eagle

Kites

There are four species of kites in North America; none are present in Connecticut. Kites are a familiar sight in tropical and semi-tropical areas. Long-winged and long-tailed, they are extremely graceful in flight, resembling large swallows. They are the least aggressive of the birds of prey.



Kite

OSPREY

There is only one species within the osprey family. While related to hawks and falcons, the osprey has been following its own evolutionary path

over time. Thus, it has developed particular internal and external adaptations to its distinct lifestyle that makes this singular classification necessary. The osprey is distinguished from other birds of prey by the following characteristics:

- one of the most widely-distributed birds in the world
- feeds almost entirely on fish
- lives along seacoasts, bays, and large, unfrozen rivers and lakes
- long, strong claws which are completely round
- toes of equal length; lower surface of toes covered with spicules (minute spike-like growths) which help it hold slippery fish
- has an outer toe, reversible as in owls, which enables it to grasp prey with two toes in front, two in back
- plumage is compact which helps soften impact and reduces wetting when it plunges into water
- sexes alike in appearance, female usually larger

Representative Species in Connecticut:

Osprey



Osprey

VULTURES

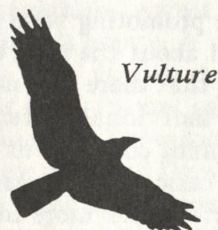
The vulture family in North America includes four species. Only one of these commonly occurs in Connecticut. These species share the following characteristics:

- head naked of feathers
- skin of head is rough, each species has a unique head color
- eyes are prominent and lack bony shield

- oval nostrils
- bill rounded and hooked
- feet weakly raptorial, claws are strong but not as sharp as those of hawks and falcons—not needed to seize prey
- short neck
- wings very long and broad
- tail rounded or even
- powerful and graceful fliers
- well-developed sense of smell
- feeds on carrion (dead and decaying animal matter)

Representative Species in Connecticut

Turkey Vulture



FALCONS

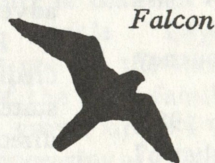
There are eight species within the falcon family in North America. In Connecticut, two of these species may be observed: the American kestrel (the smallest North American falcon) and the endangered Peregrine falcon (one of the largest of the falcons). These species share the following characteristics:

- strongly-hooked bill, conspicuously toothed and notched
- circular nostril openings
- eyes very dark
- sexes alike in appearance, female usually larger
- bullet-like heads, short necks
- broad, powerful shoulders tapering to long, pointed wings which are bent back at the wrist
- short to medium-long, tapered tail

- feet large with long, slender toes and sharply-curved talons
- extraordinary eyesight
- capable of great speed during flight, particularly while hunting (the peregrine is considered the fastest bird in the world — clocked at 175 mph during its “power dive”)

Representative Species in Connecticut:

American Kestrel
Peregrine Falcon



OWLS

There are two families of owls in North America: the barn owl family and the typical owl family. There is only one species in the barn owl family in North America, and it is present in Connecticut. Seventeen species of typical owls exist in North America, six of these may be found in Connecticut. While these two families differ in a few external and internal features, they share the following characteristics:

- strong, short, hooked bill
- large head, short neck
- sexes alike in appearance, female usually larger
- very large eyes directed forward (binocular vision)
- excellent eyesight
- possess nictitating membrane, or third eyelid, which protects retina from bright sunlight
- feathers long and soft
- ability to fly silently due to serrations on the front edge of the

first primary feather of wings (reduces vortex noise of air passing over wings)

- four toes on each foot, outer toe is reversible so that owl may perch with two toes forward, two back or three forward, one back
- legs, and in some owls, toes, covered with feathers
- possess facial discs which function acoustically by collecting and focusing sound waves, an aid in detecting location of prey



Barn Owl Family

Facial disc of feathers is triangular or heart-shaped; tail is short and square.

Representative Species in Connecticut:

Common barn owl

Typical Owl Family

Facial disc of feathers is round; tail is rounded.

Representative Species in Connecticut:

Short-eared owl
Long-eared owl
Great horned owl
Barred owl
Eastern screech owl
Northern saw-whet owl

All birds of prey are protected by federal and state laws.

(This article was prepared by the DEP's Wildlife Division and was originally published as Wildlife Bureau Nongame Series No. NG-2.) ■

On the Morality of Junk Mail

by
Allan Williams
Principal Environmental Analyst

IT WAS AN ORDINARY YEAR, and therein lies my worry. All I had done was collect every piece of unsolicited mail delivered to my home from one year. I use the term "unsolicited" so as not to offend the advertisers and marketers with the "J" word. Lest you already have an image of huge stacks of commercial advertising burying my favorite living room chair, you are only partially correct. Much to my surprise, the so-called good guys of society, the non-profits, have become as much a part of the problem as the worst offenders. But, more about that later.

If you will, follow me now in a year's journey through the mailbox of a single citizen.

In the period from November 1987 to November 1988, I received 67 lbs., 15 oz. of materials. To produce that 67 pounds of paper, a lot of resources were used: one half a tree; 2,100 kw of energy; 3,500 gallons of water; 30 pounds of air pollutants; and 1 1/2 cubic yards of landfill were taken up just to get me to purchase, sign up for, or borrow stuff I never knew I needed.

The breakdown of the materials I recieved in that one year is as follows:

Product advertising: 129 pieces — five lbs.

Publications sales: 61 pieces — three lbs.

Direct mail: 42 sets (direct mail being the groupings of advertisements that come together in the mail under different company's direct mailings) — five lbs.

Insurance sales: 18 pieces — one lb. (A very efficient group.)

Travel brochures: 10 pieces — 1 lb. 8 oz.

Nonprofit groups (by far the most amount of unsolicited mail): 167 pieces — 8 lbs. 1 oz. (Keep in mind, I did not include mail that comes as a part of paying dues to an organization. I belong to many of these, *too many*.)

Conference mailings: 38 pieces — 1 lb. 7 oz.

Credit loans: 30 pieces — 2 lbs. 1 oz.

Political advertising: 20 pieces - 10 oz.

Catalogs and circulars (number two rated amounts and certainly the largest in poundage): 161 pieces — 29 lbs. (Much of that, coated material which is not recyclable.)

G. Fox catalogs and circulars (by far the single biggest from a single company): 66 pieces — 7 lbs.

The most unusual piece of unsolicited mail was a package containing one 2 oz. box of fortune cookies that was an advertisement, I believe, for cable television.

What does all this mean?

AS YOU CAN SEE BY THE POUNDAGE, it means, among other things, a lot of natural resources were used to produce this mail. I estimate that about one half of a tree was destroyed to get that unsolicited mail to me. Multiply that times the number of adults in Connecticut, and that means about half a million trees were destroyed to provide such mailings, 67 million pounds of waste. That is a serious problem. We just have to come up with better, more effective, and more honest advertising. I think if the biggest advertisers were to reduce their mailings, others would fall in line. The irony is that the time is really right for the company that is honest to the hilt to sell you things in an honest fashion. They have been trying to convey some of that in some TV commercials, but it's only the image. It is time that products now be sold as products: that jean companies sell you jeans because they are good jeans; that soda companies sell you soda because they believe it tastes good; that automobiles be sold for function and not fantasy. It is time that people face up to both the financial credit and to the waste that is involved in our lifestyles and in the way we communicate. Environmentally we can cut back, but the type of advertising will be critical.

Recently I wrote to my alumni association about a credit card which they were promoting with misleading statements. When I inquired about the card the alumni director responded by saying that there was nothing illegal about the promotion. The individual confused legality with morality. A society cannot continue to undermine its basic trust patterns, its basic honesty patterns, and expect the society to prosper. What's more important is that the groups which act as the conscience of society, namely the non-profits, must set and abide by the highest ethical standards. For other advertisers and solicitors, the message is clear. If you can deliver your message more honestly, clearly, and with less solid waste, the public might be more receptive to your messages. In the meantime, can society afford each of us getting 67 pounds of junk mail a year? Even more serious, can we afford to consume the goods and services they promote and still have a viable planet?



The author perusing his mail.

The Pink Family

by
Gale W. Carter
Illustrations by
Susan Carsten

Corn Cockle
(*Agrostemma githago*)



THE PINK FAMILY (*Caryophyllaceae*) family includes many handsome flowers, a number of which are highly prized as garden flowers, such as carnation, sweet william, pinks and baby's breath. A number of flowers in this family have made their escape from formal gardens and appear in the wild. These include soapwort, Maltese cross and Deptford pink.

It may come as a surprise to you that the pink family is not named for the color pink, but from the pinked or scalloped edges of the petals of a number of its members.

Following are some of the general characteristics of the pink family:

- Stems usually with swollen joints (nodes).
- Leaves opposite with absence of teeth, often joined at the base.
- Flowers mostly bisexual with or without petals, usually in broad, more or less flat-topped flower clusters with central flowers blooming first (cymes).
- Sepals — four or five — may be separate or united.
- Petals — four or five — separate and regular (radially symmetrical).
- Stamens the same number as the petals or twice as many.
- Superior ovary (all parts of the flower originating at the base of the ovary) — from two to five styles, depending on the genus.
- Fruit usually a capsule with many seeds.

LET'S EXPLORE TOGETHER a few of the common members of this family of beauties.

Corn cockle (*Agrostemma githago*) is one of the more showy members of the pink family. It is a plant that grows up to a height of three feet, appearing as a single stem or sometimes with a few branches.

The stem is covered with white hairs that may be somewhat sticky. The long, narrow, light green leaves are opposite and they have many silky hairs.

The long-stalked flowers of corn cockle are large and emerge from the axil of the leaves. They are very colorful with red-to-purple petals and with pale streaks that serve as honey guides. Often the petals have black spots. Each flower usually has one pistil with five styles and 10 stamens. The stamens and pistils mature at different times or, in some instances, small flowers are formed that are all female.

The calyx is a very distinctive feature of the corn cockle with its 10 conspicuous ribs and five sepals that greatly exceed the petals. Some naturalists speculated that these long sepals may serve as perches for butterflies and moths when they visit the flower to pollinate it. Blossoming time for corn cockle is from July to September. The fruit is a capsule with numerous black seeds. Corn cockle is a plant of grainfields, waste areas, and occasionally roadsides.

The genus name, *Agrostemma*, is derived from the Greek *agros*, meaning "field," and *stemma*, meaning "crown" — thus, "crown of the field," referring to its beauty and use in garlands.

The meaning of the species name *githago* has been lost in history. The common name, corn cockle, is also of interest. In England, where it grew as a native plant, corn usually meant "wheat." Here, it appeared in wheat fields and contaminated wheat seeds. Cockle is a general term given to a number of plants that are weeds in grain fields.

Corn cockle was considered helpful at one time in the treatment of dropsy, jaundice, gastritis, and paralysis.

SOAPWORT, or bouncing bet (*Saponaria officinalis*) is a sparsely branched plant with a rather thick stem that is smooth or with scattered hairs. It grows to a height of up to three feet.

The leaves are opposite, egg-shaped to lance-like and have three veins branching out from their base. The pink or white regular flowers are fragrant. They appear in dense clusters in the axils of the leaves or at the top of the stem. Some individual plants may have some flowers that are double

petalled. The calyx consists of five united sepals that form a tube encircling the corolla. The corolla has five shallowly notched petals that become narrow toward their base. Blossoming time is from July to September. The fruit that forms is a capsule with four teeth at the top.

Soapwort is commonly found along roadsides, railroads, and in waste or disturbed areas.

The genus name is from the Latin *sapo*, meaning "soap." Its juice contains poisonous saponins which help to form a lather when its leaves are crushed and agitated in warm water. The species name means "of the shops," a reference to apothecary shops, indicating that the plant had medicinal value.

The origin of the name bouncing bet is not certain, but some believe it refers to an early washerwoman.

Because of the cleaning qualities in the plant, it was long used as a substitute for soap and as a base for a home-made shampoo. It is still valued for its ability to restore old china and for cleaning delicate tapestries.

It has had many uses as medicine. These include treating skin disorders, jaundice, gout, and rheumatism, and as a poultice to restore the color to bruised eyes. If used medicinally, caution is necessary to avoid poisoning due to its saponia content. It was once used as a fish poison.

D EPTFORD PINK (*Dianthus armeria*) is a dainty and beautiful member of the genus *Dianthus*, which also includes carnations and sweet williams. It has a stiff, slender stem that is often branched and may grow to a height of up to 24 inches.

The leaves are opposite and long, thin, and hairy. The flowers appear in small clusters at the top of the branches and open one at a time. The calyx is tubular and five-toothed with long thin hairy bracts beneath. Its corolla consists of five small red-to-pink petals with numerous tiny white spots in the center (best seen with a hand

lens). The margins of the petals are jagged, looking as if someone had trimmed them with pinking shears. There are 10 stamens and one pistil with two styles. Blossoming time is May to July. The fruit is a capsule with four valves or sections that open at maturity.

This annual, or biennial, is found

Soapwort



(*Saponaria officinalis*)

in dry fields, along roadsides and in waste places.

The genus name is from the Greek *dios*, meaning "Jupiter," and *anthos*, meaning "flower," or "Jove's own flower." Some say that it means "divine flower." Theophrastus, an early Greek naturalist, named the plant for its fragrance and beauty.

The meaning of the species name is

somewhat more obscure. *Armeria* is the Latin name given to the sea pink, which it was once thought to resemble. Deptford, the common name, is from Deptford, England, where the plant once grew. This community is now a part of London.

Maiden pink (*Dianthus deltoides*) is a similar species that grows wild, but its flowers are larger and solitary. It often has a triangular pattern in the throat of the flower, hence the species name *deltoides* meaning triangular.

W HITE CAMPION (*Lychnis alba*) grows as a many-branched species that may reach a height of three feet. Its stem is covered with fine glandular hairs.

The leaves are opposite with toothless margins and may vary from egg-shaped to lance-like. The basal leaves may grow in a rosette.

Flowers of white campion are solitary or they may be in small clusters of two or three. The five-toothed calyx resembles an inflated bag covered with numerous ribs and sticky hairs. The corolla is five-petaled and is usually white, but may be pink. Each petal is deeply cleft. There are 10 stamens and one pistil with five styles. Blossoming occurs from May to October.

The fruit is a dry capsule. At maturity, each of the five teeth at the top split in two to allow for seed dispersal.

White campion appears along roadsides, at the edge of fields, and in waste places.

The genus name *Lychnis* is from the Greek *Lychnis*, meaning flame. This best describes some of the brilliant members of this genus. The species name *alba* means white, referring to the color of the flower.

Its common name, evening lychnis, explains its time of blossoming. At night it gives off a fragrance that attracts moths that pollinate it. White campion is sometimes confused with night-flowering catchfly (*Silene noctiflora*) because it also flowers at night, but its flowers are smaller, bi-

sexual and have only three styles. White campion is also similar to bladder campion (*Silene cucubalus*), but this species is not sticky and, like *Silene noctiflora*, it is bisexual and has three styles.

Both white campion and red campion (*Lychnis dioica*), a closely related species, have an unusual superstition associated with them. It was once believed that if you pick red campion your father would die, whereas if you picked white campion, it would be your mother who would die.

NIGHT-FLOWERING catchfly (*Silene noctiflora*) has a characteristic stickiness on its stout stem due to the presence of fine glandular hairs. The stem may be branched or unbranched, and it grows to a height of up to three feet.

The leaves are opposite and the lower ones taper toward their base. They are long-stalked while the upper leaves lack stalks.

Flowers of this species appear in small terminal clusters. They are fragrant, opening in the evening and lasting until the following morning. Moths pollinate them. Blossoming time is from May to September.

The five-toothed calyx is tube-like and marked by beautiful veining. The petals may be either white or pink and are deeply cut. Both sexes are present in the same plant. There is a single pistil with three styles. The presence of three styles is a characteristic of the genus *Silene* and is one way of distinguishing it from the genus *Lychnis*, which usually has five styles.

The fruit is a capsule that opens at the top, dispersing its numerous, kidney-shaped seeds at maturity.

The night-flowering catchfly grows in fields, along roadsides and in waste places.

Silene, the genus name, is from the Greek *salon* meaning "saliva." This, and the common name catchfly, appears to be a reference to the stickiness that helps the plant trap small insects,

preventing them from stealing pollen, and is characteristic of many members of this genus. However, there are those who believe the genus name is because the sticky plant secretions resembled the foam on the face of Silenus of Greek mythology, who was the foster father of Bacchus and a frequent beer drinker. The species name *noctiflora* is the Latin word meaning "night flower."

Common Chickweed



(*Stellaria media*)

Two other sticky species in this genus are forking catchfly (*Silene dichotoma*) and sleepy catchfly (*Silene anterrhina*). Similar species that are non-sticky are bladder campion (*Silene cucubalus*) and starry campion

(*Silene stellata*).

COMMON CHICKWEED (*Stellaria media*) grows as a creeping, much branched plant. It has a stem that is nearly smooth and may grow to a length of 16 inches.

The leaves are opposite and heart-shaped. The lower ones are long-stalked; the upper ones stalkless.

Its flowers grow in clusters at the tip of the branches or as individual flowers in the axil of the leaves. The calyx has five green sepals that extend beyond the petals. There are usually five white petals but this may vary. They are very small (1/4" wide) and deeply divided, giving the appearance of ten. The number of stamens may vary from three to seven. They are about the same length as the pistil. There are usually three styles. Blossoming continues throughout the year.

The fruit is a capsule that disperses its seeds by dividing into three or six sections.

Common chickweed can be found on lawns, fields, waste places, and roadsides.

The genus *Stellaria* gets its name from the star-like appearance of many of its species. *Stella* is Latin for "star." The species name *media* indicates that this plant is intermediate in size compared with other species of chickweed.

The common name chickweed originated from the fondness of many wild and domestic birds for both its seeds and foliage.

The common chickweed, however, is the only species of *Stellaria* that is important for wildlife.

Chickweed can be used as a food, eaten as a green-like spinach and as a medicine it has long been used in treating a wide variety of skin ailments.

The genus *Stellaria* may be confused with the genus *Cerastium* because they are both chickweeds, but the two can be distinguished by the number of styles and the way in which the fruit capsule opens. In *Cerastium* there are usually five styles and the capsule splits at the top into 10 small teeth.

Alcohol Ban

A ban on all alcoholic beverages has been initiated at Black Rock State Park in Thomaston. Officials from the DEP's Bureau of Parks and Forests have announced that alcohol will be prohibited in all areas of Black Rock State Park beginning with the 1990 recreation season.

"We are taking action because of the increasing number of alcohol-related problems that Black Rock is experiencing," said Richard Clifford, chief of the Bureau of State Parks and Forests. "After a comprehensive study of the problems we have concluded that the vast majority of the disturbances and management problems within the park were generated from alcohol use," said Clifford.

Clifford indicated park officials had attempted to deal with the problem in a conventional manner but were unsuccessful. "The type of visitors to the park has changed over time. Family oriented recreationalists are being displaced by individuals and groups who become involved in disruptive activities," Clifford noted. "We hope that this policy will ensure an atmosphere of welcome to all those who wish to visit Black Rock State Park," added Clifford.

Taxidermist Arrested

On March 23, 1990, Connecticut State Conservation Officers arrested Peter Kantorowski of 22 Larkspur Drive in Trumbull and charged him with 211 counts ranging from taxidermy without a license to possession of illegal mounts. This arrest was a result of undercover investigations of Kantorowski's business, known as "Trail's End Taxidermy," conducted by both state and federal officials over the past two years.

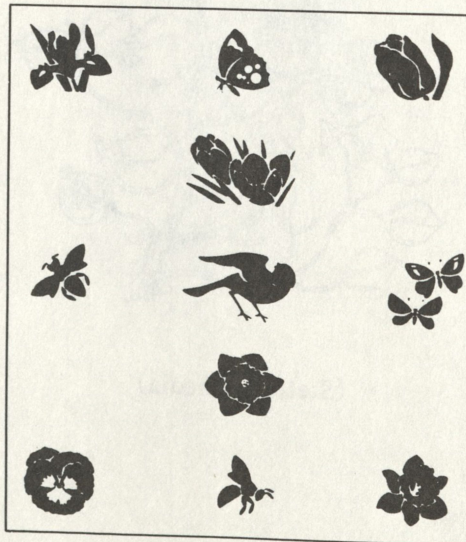
The undercover investigation involved Kantorowski's alleged participation in the illegal practice of per-

forming taxidermy without a state license or federal permit and in dealing with highly protected species of raptors, such as hawks and owls.

The search of Kantorowski's business resulted in the seizure of numerous species of wildlife mounts, including: hawks, owls, great blue herons, osprey, swans, song and shore birds, grizzly, polar, Kodiak, and black bears, timber wolf, mountain lion, coyote, wolverine, bighorn sheep, otter, badger, caribou, buffalo, and exotic species from Africa and Australia.

Kantorowski was served with a search warrant on March 10 which resulted in the largest confiscation of illegally mounted wildlife in the history of Connecticut's Law Enforcement Division.

The alleged violator, if found guilty of all charges, could be fined \$41,300 and sentenced to up to 33 years, four months, and 15 days in jail. The investigation is ongoing and a number of other arrests are expected.



Law Enforcement Positions

The DEP is seeking applicants for the positions of *Park Aid* and *Seasonal Patrol Officer* to work out of Connecticut state parks and forests this summer.

Park Aid: As a primary visitor contact person, interacts with the pub-

lic to assist them in the safe and orderly enjoyment of DEO resources and activities; assists with operational and maintenance duties as required. May assist a patrol officer with protective duties.

Incumbents in this class must possess a valid motor vehicle operator's license during state employment and conform to uniform and grooming directives.

Patrol Officer I: As a primary visitor contact person, interacts with the public to assist them in the safe and orderly enjoyment of DEP resources and activities; enforces laws and regulations governing visitor behavior and the use of department lands and facilities; investigates and prepares reports of unusual occurrences. May supervise other seasonal employees as assigned.

Incumbents in this class must pass a background investigation; have successfully completed the MPTC Basic Police Officer Training Block I and be committed to completing the program within five years; successfully complete a department training program and any other required training; possess a valid motor vehicle operator's license during state employment; conform to all appropriate directives.

Officers will be issued uniforms, batons, and handcuffs.

Officers will receive a provisional appointment under C.G.S. 26-5 and be authorized to make arrests as outlined at the department training program.

Patrol Officer II: Same job description and requirements as a Patrol Officer I except that a Patrol Officer II must have successfully completed the MPTC Police Officer Training Program (or its equivalent) and be eligible for certification as a police officer; must possess and retain certification in Red Cross Standard First Aid or certification of a higher level.

Officers will be appointed under C.G.S. 26-5 and be authorized to make arrests as outlined at the department training program.

For further information, please contact the DEP Law Enforcement Office at (203) 566-3978.

The Night Sky

by
Francine Jackson

Most of the time, when introducing the constellations, the tendency is to concentrate on the southern sky, on those that change with the passings of the seasons. But, there are stars in the north, some of which are surprisingly familiar to just about everybody.

Most prominent in the north are the seven stars making up the Big Dipper, probably the most recognized pattern in the sky. To see it now, you have to look almost directly overhead. As you will see, the bowl of the dipper appears upside down, as if it is emptying its contents of water onto a growing earth.

As always, the Big Dipper is useful in finding a most important star in the north, Polaris, also called the

North, or Pole Star. Simply find the two stars at the end of the bowl, multiply the distance between them by five, and you will have found the North Star. By now you may have noted something: Polaris is not the brightest star in the sky. Actually, over three dozen stars are brighter — it is important only because of its position in the sky, very near to the North Celestial Pole. For us, that means this star stays almost stationary; while all other stars will move significantly through the evening hours, Polaris's position will remain virtually unchanged.

Contrary to popular belief, the Big Dipper is not a constellation. It is actually a very small part of the third largest constellation in the sky, Ursa Major, or the Big Bear. This picture is so apparent (although many of the fainter stars are lost to our night lighting) that not only did the Greeks and

Romans have myths for the Bear, but when Columbus sailed to the New World in the 15th century, he discovered the natives also recognized a bear in this part of the sky, although their exact picture and legend were different.

Two sets of closely spaced stars very easily resolve into the Bear's front and back paws. However, a third set, located to the east of the other two, transforms the feet into a stellar configuration called the Three Leaps of the Gazelle. According to legend, the dark area of the sky below the Bear was called the pond. The gazelle leaped into the pond, supposedly to escape danger. Although legend does not say what happened when the gazelle leaped out of the pond, we can all hope it did not encounter more danger with the Big Bear, at whose feet it is now standing. ■

Letters to the Editor

In response to your radioactive waste siting article in your March issue, I have some haunting questions. How can we feel confident that radioactive waste can be handled, transported, and stored safely? When we consider that the earth is not a stable receptacle insofar as the following somewhat unpredictable conditions exist: slow but continual movement of the earth's crust, volcanic eruptions, earth tremors, quakes, fissures, storms, tornadoes, landslides, floods, frost heaves, and human error — Chernobyl, Valdez, Minus Bridge, Bridgeport Avion Plaza collapse.

I would like to suggest a solution to the disposal of radioactive waste which I think is worthy of equal consideration: Let the radioactive waste be divided up into equal portions for every person and let it be distributed to each person to take home and laid safely to rest in their homes. Each week a new ration would be distributed according to the amount of radioactive waste generated weekly. In bringing the problem close to home in this manner, would we begin to wonder

why we all think we are benefiting from the industries that generate this waste? Would this disposal method cause some mighty powerful non-toxic alternatives to be created? I wonder.

Carolyn Werge
Thompson

I have been a subscriber for many years. Each year *Connecticut Environment* gets better than the last.

Agnes C. Dubin
Hartford

I like your magazine because it is always so upbeat. It makes one think we can do something. I have cancelled my subscriptions to other nature magazines because they are such prophets of doom.

Mrs. Milton M. Weidmann
North Haven

Just want to say that I truly enjoy reading this very interesting and so informative magazine. I've learned so much from it and it has made me so aware of important matters — things I care about but was ignorant of any facts. Thanks.

Barbara C. Stassola
Plainville

Endnote

"There's a master who feeds on
rosy clouds
he lives concealed from common
wanderers
no matter what the season it's really
restful
the summer is very much like
the fall
hidden streams are always gurgling
the wind murmurs in tall pines
sit here for half a day
and you'll completely forget a
hundred years' woes"

Han-shan



When you think about it,
Connecticut Environment
is a very good deal.

Please send a *Connecticut Environment* subscription to:

Name: _____
(Please Print)

Address: _____

Town: _____

State: _____ Zip: _____

___ \$7/1 year ___ \$13/2 yrs

Name: _____
(Please Print)

Address: _____

Town: _____

State: _____ Zip: _____

___ \$7/1 year ___ \$13/2 yrs

DEP *Connecticut Environment*
165 Capitol Ave., Rm. 112
Hartford, CT 06106

Gift card to read from: _____

CONNECTICUT
ENVIRONMENT

Department of Environmental Protection
State Office Building, Rm. 112
Hartford, CT 06106

SECOND CLASS POSTAGE PAID
AT HARTFORD, CONNECTICUT